DEMIN, A.M., KRUT', I.V.

Lower Carboniferous igneous activity in the northern Caucasus. Biul. MOIP Otd. geol. 40 no. 6:139 N-D '65 (MIRA 19:1)

1. Submitted April 8, 1965.

LEVINSON-LESSING, F.Yu.[Loewinson-Lessing, F.IU.]; STRUVE, E.A.;
PETROV, R.P.; DEMIN, A.M.; BORSUK, A.M.; YEZHOV, A.I.;
AFANAS'YEV, G.D., red.; PETROV, V.P., red.; USTIYEV, Ye.K.,
red.; VLASOVA, L.V., red. izd-va; SAMARCHYAN, L.M., red.
izd-va; SMIRNOVA, Z.A., red.izd-va; GUROVA, O.A., tekhn.
red.

[Dictionary of petrography] Petrograficheskii slovar'. Pererab. i dop. R.P.Petrovym i dr. Pod red.G.D.Afanas'eva, V.P. Petrova i E.K.Ustieva. Moskva, Gosgeoltekhizdat, 1963. 447 p.
(MIRA 16:6)

(Russian language--Dictionaries)
(Petrology--Dictionaries)

KARVETSKIY, A.V.; SIGEL', M.G.; KULICHKIN, A.V.; DEMIN, A.M.; RYZHOVA, V.K.; FEDER, R.M.; MAKAROVA, T.L.; MEYER, R.A.; STEPANOVA, V.P.; SKURATOV, A.D., red.; KHAUSTOVA, A.K., tekhn. red.

[Economy of Ul'ianovsk Province; statistical collection] Narodnoe khoziaistvo Ul'ianovskoi oblasti; statisticheskii sbornik. Ul'ianovsk, 1961. 271 p. (MIRA 15:5)

1. Ulyanovsk (Province) Statisticheskoye upravleniye. 2. Nachal'nik Statisticheskogo Upravleniya Ul'yanovskoy oblasti (for Skuratov).
(Ul'ianovsk Province—Statistics)

DEMIN, A.N.

Reducing labor expenditure in the manufacture of wadding.
Tekst. prom. 23 no.7:85-87 Jl '63. (MIRA 16:8)

1. Zamestitel' nachal'nika otdela mekhanizatsii i avtomatizatsii TSentral'nogo proyektno-konstruktorskogo i tekhnologicheskogo byuro (TsPKTB) Moskovskogo soveta narodnogo khozyaystva.

(Packaging machinery) (Cotton manufacture)

L 04152-67 EWT(d)/EWT(l)/EWT(m)/EWP(c)/EWP(v)/T/EWP(t)/ETI/EWP(k)/EWP(h)/EWP(l)

ACC NR: AR6016530 IJP(c) JD SOURCE CODE: UR/0276/65/000/012/B101/B101

AUTHOR: Kosenko, I. N.; Demin, A. N.

44
B

TITLE: Provision for accuracy 14 during calculation and reproduction of a tape-recorded program for machining components

SOURCE: Ref. zh. Tekhnologiya mashinostroyeniya, Abs. 12B757

REF SOURCE: Tr. Kuybyshevsk. aviats. in-t, vyp. 20, ch. 1, 1965, 111-120

TOPIC TAGS: machine tool, industrial automation, magnetic recording tape, metal machining

ABSTRACT: The authors point out the general stages in preparation of technological data and recording of programs including the elements of mathematical calculations for the coordinates of support points and equidistant lines from complicated interpolation formulas and recommend a system for the preparatory stages. Individual examples are given together with a system for monitoring the calculation, recording and reproduction of a program for finishing parts on tape-operated machine tools. 14 Two methods for program calculations are described: using fixed keyboard computers with manual control alone and using electronic digital computers. The kinematic diagram is given together with the construction and opertion of a control unit for tracing the contour to be machined 16 in a 1:1 scale. 6 illustrations. [Translation of abstract]

SUB CODE: 13

Card 1/1 UDC: 621.9.06-529

DEMIN, A.P.; ZAKHAROV, V.K. [deceased]

Practical recommendations on the taking of tides into account for navigation purposes. Inform. sbor. TSNIIMF no.115. Sudovozh. i sviaz' no.26:75-84 '64. (MIRA 18:2)

PANOVA, Ye.I., starshiy nauchnyy sotrudnik; DEMIN, A.T., mekhanik.

New method of tagging sheep. Trudy VNIIMP no.7:146-150 '55. (MLRA 9:8)

(Sheep)

DEMIN, A. V. (Engr)

DEMIN, A. V. (Engr) -- "Theoretical and Experimental Basis for the Selection of the Type and the Parameters of a Steam Power Plant for Complex Mechanization and Thermification of Livestock Breeding Farms." Sub 3 Jun 52, Joint Sci Council of VIM and VIESKh (Dissertation for the Degree of Candidate in Technical Science)

SO: Vechernaya Moskva, January-December 1952

1. DEMIN, A. V.; CHERKRASSKIY, A. Kh.

2. USSR (600)

4. Steam Power Plants

7. "LPU-1" (light steam power plant), Nauka i zhizn', 19, No. 12, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April, 1953, Uncl.

1. DEKIN, A. V.; CHERKASSKIY, A. Kh.
2. USSR (600)
4. Steam Boilers
7. Principle results of testing the LPU-1 steam plant designed by the All-Union Scientific Research Institute for the Mechanization of Agriculture, Mekh. i elek. sel'khoz., No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April, 1953, Uncl.

DEMIN, A.V.; YELISEYEV, N.N.; KHEYNIN, G.V.; MOROZOV, Ye.A.; TSUKERNIK, L.M.;
CHERKASSKIY, A.Kh.; KOBYLYANOV, L.M., redaktor; BALLOD, A.I., tekh. red.

[Steam power plant LPU-1] Parosilovaia ustanovka LPU-1. Moskva,
Gos.izd-vo selkhoz. lit-ry, 1955. 246 p. (MLRA 9:2)
(Steam power plants) (Rural electrification)

Demin, A.V.

BREMER, G.I., doktor tekhn.nauk, prof.; GALDIN, M.V., inzh.; DEMIN, A.V., kand.tekhn.nauk; ZYABLOV, V.A., kand.tekhn.nauk; KAPLUNOV, M.M., inzh.; KASHEKOV, L.Ya., inzh.; KOROLEV, V.F., kand.tekhn.nauk; KRASNOV, V.S.; KULIK, M.Ye., kand.tekhn.nauk; MAKAROV, A.P., inzh.; NOVIKOV, G.I., kand.tekhn.nauk; NOSKOV, B.G., inzh.; OLENEV, V.A., kand.vet.nauk; OSTANKOV, V.P., inzh.; PERCHIKHIN, A.V., inzh.; POKHVALENSKIY, V.P., kand.tekhn.nauk; SERAFIMOVICH, L.P., kand. tekhn.nauk; SMIRNOV, V.I., kand.tekhn.nauk; URVACHEV, P.N., kand. tekhn.nauk; FADEYEV, N.N., inzh.; FATEYEV, Ye.M.; KRYUKOV, V.L., red.; VESKOVA, Ye.I., tekhn.red.

[Reference book on the mechanization of stock farming] Spravochnaia kniga po mekhanizatsii zhivotnovodstva. Moskva, Gos.izd-vo sel'khoz. lit-ry, 1957. 678 p. (MIRA 10:12)

1. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. V.I.Lenina (for Krasnov, Fateyev).
(Farm equipment) (Stock and stockbreeding)

DEMIN, A.V.

[Design and operation of boiler engine units, steam power plants and diesel engines] Ustroistvo i ekspluatatsiia lokomobilei, parosilovykh ustanovok i dizelei. Moskva, Gos.izd-vo selkhoz lit-ry, 1958. 429 p. (MIRA 12:3)

(Gas and oil engines) (Diesel engines) (Steam power plants)

DIMKIN, A.V., kand. tekhn. nauk; CHERKASSKIY, A.Kh., kand. tekhn. nauk.

SPU-125 steam power plant. Mekh. i elek. sots. sel'khoz. 15 no.1:
41-45 '58. (MIRA 11:3)

1. Vsesoyusnyy nauchno-issledovatel'skiy institut elektrifikatsii
sel'skogo khozyaystva.

(Steam power plants)

LUTOSHKIN, G.S.; YERMILOV, V.I.; DEMIN, A.V.; GONCHAROV, V.P.

Hydraulic fracturing in gas wells and its future uses. Gaz. prom. 5 no.5:1-6 My '60. (MIRA 14:11)
(Gas wells--Hydraulic fracturing)

DEMIN, A.V., kand.tekhn.nauk

Using air heaters in the agriculture of the U.S.A. Mekh. i elek. sots. sel'khoz. 19 no.1:59-60 '61. (MIRA 14:3)
(Heating)

DEMIN, A.V., kand.tekhn.nauk

New steam boilers for agriculture. Mekh.i elek.sots.sel'khoz.
19 no.5:58-61 '61. (MIRA 14:10)
(Farm mechanization) (Boilers)

DEMIN, A.V., kand.tekhn.nauk; YELISEYEV, N.N., inzh.

Mechanization of hay making operations. Mekh. i elek. sots. sel'khoz. 20 no.1:26-30 '62. (MIRA 15:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut elektrifikatsii sel'skogo khozyaystva.

(Feeding and feeding stuffs)

L 52169-65 EWG(j)/EWP(e)/EWT(m)/EPF(c)/EWP(i)/EWG(m)/EPR/EWP(b) Pr-4/Ps-4 WW/WT

ACCESSION NR: AP5015482 UR/0286/65/000/008/0016/0017
536.5

38
B

AUTHOR: Abrosimov, B. V.; Nagornyy, V. G.; Vyatkin, S. Ye.; Demin, A. V.; Serov, I. V.

TITLE: A method for determining the maximum temperature in heat treatment of carbonaceous material. Class 12, No. 170040

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 8, 1965, 16-17

TOPIC TAGS: carbon, temperature measurement

ABSTRACT: This Author's Certificate introduces a method for determining the maximum temperature in heat treatment of a carbonaceous material. A sample of the material is heated under a load of no less than 15 kg/cm^2 and the maximum temperature is determined from the point where the sample begins to be deformed.

ASSOCIATION: none

SUBMITTED: 05Feb63 ENCL: 00 SUB CODE: IE

NO REF SOV: 000 OTHER: 000

Card 1/1

L 22592-66

ACC NR: AP6013001 SOURCE CODE: UR/0105/65/000/006/0091/0091

AUTHOR: Andrianov, V. N.; Budzko, I. A.; Venikov, V. A.; Demin, A. V.; Gorodskiy, D. A.; Grudinskiy, P. G.; Zakharin, A. G.; Krasnov, V. S.; Levin, M. S.; Listov, P. N.; Markovich, I. M.; Mel'nikov, N. A.; Nazarov, G. I.; Razevig, D. V.; Smirnov, B. V.; Stepanov, V. N.; Syromyatnikov, I. A.; Fedoseyev, A. M.; Yakobs, A. I.

35

B

ORG: none

TITLE: Doctor of technical sciences, Professor L. Ye. Ebin (on the occasion of his 60th birthday

SOURCE: Elektrichestvo, no. 6, 1965, 91

TOPIC TAGS: scientific personnel, electric network, lightning

ABSTRACT: Professor Lev Yefimovich Ebin, 60, graduated in 1928 from the Kiyevskiy elektrotekhnicheskiy institut (Kiyev Electrotechnical Institute). Between 1929 and 1936, he worked in the Donenergo system and published various original papers on lightning protection and grounding devices. From 1936 EBIN works at the Vsesoyuznyy nauchno-issledovatel'skiy institut elektrifikatsii sel'skogo khozyaystva (All-Union Scientific Research Institute for the Electrification of Agriculture) where he heads a laboratory. In 1937, he defended his candidate's dissertation and in 1951 his Ph. D. Thesis dealing with studies of the nonsymmetrical operating conditions of electrical networks and of stationary and nonstationary electro-thermal processes in the

Card 1/2 UDC: 621.31

L 22592-66

ACC NR: AP6013001

country. These works served for further development of the rural distribution networks. He showed considerable interest in the problem of the raising of scientific personnel. Etin was decorated with "Znak pocheta" and various medals. Orig. art. has: 1 figure. [JPRS]

SUB CODE: 09 / SUBM DATE: none

Card 2/2

LEYBOVICH, Yevgeniy Abramovich, kandidat tekhnicheskikh nauk; DEMIN, Aleksandr Vasil'yevich, inzhener; ROMANOV, Viktor Alekseyevich, inzhener; YAURE, Andrey Georgiyevich, inzhener; MELEYEV, A.S., redaktor; TIKHONOVA, Ye.A., tekhnicheskiy redaktor

[Automatic electric winches for towing] Avtomaticheskie elektricheskie buksirnye lebedki. Moskva, Izd-vo "Morskoi transport," 1957. 88 p. (MLRA 10:8)

1. TSentral'noye proyektno-konstruktorskoye byuro -4 Ministerstva Morskogo Flota (for Demin). 2. Zavod "Dinamo" (for Leybovich, Yaure)
(Winches) (Towing)

BRYKIN, L., mashinist pod"yema; DEMIN, B., krepil'shchik; PERSHIN, V., slesar'; YAS'KO, Ya., gornyy master; VIGDERGAUZ, I.; KRYLOVSKAYA, A.

New living quarters, old mistakes. Sov.shakht. 10 no.4:34-35 Ap '61. (MIRA 14:9)

1. Redaktor shakhtnoy gazety "Slava Rodine" (for Vigdergauz).
2. Korrespondent zhurnala "Sovetskiy shakhter" (for Krylovskaya).

(Housing)

MIKHAYLOV, A.V., kandidat tekhnicheskikh nauk; DEMIN, B.I., inzhener.

Double stressing of wire reinforcements for concrete elements on revolving tables. Bet.i zhel.-bet. no.7:235-237 Jl '56.
(Prestressed concrete) (MIRA 9:9)

DEMIN, B.I., inzhener; MIKHAYLOV, A.V., kandidat tekhnicheskikh nauk.

Prestressed wire reinforced concrete slabs for precast pavements.
Avt. dor. 20 no.2:13-14 F '57. (MLRA 10:4)
(Pavements, Concrete) (Concrete slabs)

DEMIN,B.S.

[redacted]

New technical developmentsof socialist agriculture and stock-breeding. Priroda 44 no.8:47-52 Ag '55. (MLRA 8:10)

1. Direktor Pavil'ona mekhanizatsii i elektrifikatsii sel'skogo khozyaystva SSSR

(Agricultural machinery)

ASHURLI, S.I.; IBRAGIMOV, E.S.; DEMIN, D.I.; VACHEYSHVILI, A.Z.

Results of testing a telescopic derrick with open front. Azerb. neft.
khoz. 37 no.9:43-45 S '58. (MIRA 11:12)
(Cranes, derricks, etc.)

VASIL'YEV, N.; DEMIN, D.; YEROKHOVETS, A.; ZHURAVLEV, V.; ZHURAVLEVA, R.; KANDYBA, Yu.; KOLOBKOVA, G.; KRASNOV,V.; KUVSHINNIKOV, V.; MATUSHEVSKIY, V.; PLEKHANOV, G.; SHIKALOV, L.; SUKHOVA, G.M., red.; RUBINOVA, L.Ye., tekhn. red.

[On the trail of the Tunguska catastrophe] Po sledam Tungusskoi katastrofy. Tomsk, Tomskoe knizhnoe izd-vo, 1960. 157 p. (MIRA 16:10)
(Podkamennaya Tuguska Valley--Meteorites)

S/210/63/000/001/003/003
E032/E314

AUTHORS: Plekhanov, G.F., Vasil'yev, N.V., Demin, D.V., Zhuravlev, V.K., Zenkin, G.M., Kovalevskiy, A.F., L'vov, Yu.A., Tul'skiy, A.S. (Deceased) and Fast, V.G.

TITLE: Some results of studies of the problem of the Tungusska meteorite

PERIODICAL: Geologiya i geofizika, no. 1, 1963, 111 - 123

TEXT: A Composite Independent Expedition (CIE) was organized in 1959 and a number of scientific workers and engineers from institutions of Tomsk, Moscow, Novosibirsk and other towns participated in it. The aim of this expedition was to carry out a composite study of the region of the fall of the meteorite. Field work was carried out in 1960 together with a Moscow expedition directed by V.A. Koshelev. There was an expedition in the summer of 1961 organized by the Komitet po meteoritam AN SSSR (Committee for Meteorites of the AS USSR) under the direction of K.P. Florenskiy. The CIE was a part of the latter expedition. Parallel field work was carried out during 1959-1961

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Some results of S/210/63/000/001/003/003
E032/E314

by the Committee for Meteorites (B.I. Vronskiy - 1959-1960 and A.V. Zolotov - 1959-1961). The present paper reviews briefly the results obtained by the CIE and compares them with those obtained by other workers. A chart is reproduced showing the marsh and woodland distribution and magnetometric profiles in the neighbourhood of the epicentre. It was found that the marshes were apparently natural formations, unaffected by the fall but there were some arboreal features indicating the effect of the fall on trees. A study was made in 1960 of the felling of trees as a result of the fall of the meteorite. Analysis of these data showed that the height at which the meteorite exploded was 10.5 ± 3.5 km. Magnetometric searches revealed the absence of major magnetic losses. Other studies revealed a region with enhanced concentration of Ni, Co and Mo in the soil and Ce, La, Y and Yb in the wood ash. This region was 2-6 km N.W. of the epicentre. A further series of measurements was concerned with the residual radioactivity in the region. Previous conclusions regarding the increase in radioactivity near the epicentre, as compared with greater distances, were not confirmed. It is suggested that the

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earlier measurements revealed traces of fall-out due to American nuclear tests in 1958. Analysis of these and other published data leads the authors to suggest the following working hypothesis. In the middle of June, 1908, the Earth passed through a cosmic-dust cloud which entered the atmosphere and sedimented between 55 and 65° N. On reaching the lower layers of the atmosphere, dust particles gave rise to anomalous airglow and development of noctiluscent clouds at isolated points in Europe between June 22 and 29. The amount of dust was not, however, too great and hence the optical anomalies associated with it were localized and there was no change in the polarization of the day sky. In the morning of June 30, the Earth entered the part of the cloud containing large dust-particle clusters and the penetration of these clusters into the lower layers gave rise to a change in the polarization and the appearance of a solar halo and noctiluscent clouds. At the same time, a major meteoritic body entered the atmosphere. The resistance experienced by the body (dense swarm of particles) increased rapidly at the boundary of the troposphere with the result that the body was decelerated and the available magnetic energy was converted into the energy of the explosion. This hypothesis is not fundamentally different from that put forward by V.G. Fesenkov (cometary hypothesis). It is suggested that the differences may be of terminological origin. This must be investigated further. There are 1 figure and 1 table.

ASSOCIATIONS: Tomskiy meditsinskiy institut (Tomsk Medical Institute)
NII Tomskogo politechnicheskogo instituta (NII of Tomsk Polytechnical Institute)
Institut geologii i geofiziki Sibirskogo otdeleniye AN SSSR (Institute of Geology and Geophysics of the Siberian Division of the AS USSR)

SUBMITTED: April 9, 1962

BUTEYKO, K.P.; DEMIN, D.V.

Cross-correlation analysis of physiological functions . Izv.SO AN SSSR no. 8. Ser. biol.-med. nauk no.2:127-129 '63. (MIRA 16:11)

1. Institut eksperimental'noy biologii i meditsiny Sibirskogo otdeleniya AN SSSR, Novosibirsk.

ACCESSION NR: AT4035837 S/2534/64/000/024/0112/0128

0

AUTHOR: Boyarkina, A. P.; Demin, D. V.; Zotkin, I. T.; Fast, V. G.

TITLE: Study of the shock wave of the Tungus meteorite from the associated forest destruction

SOURCE: AN SSSR. Komitet po meteoritam. Meteoritika, no. 24, 1964. Trudy* Desyatoy Meteoritnoy konferentsii v Leningrade 29 maya - 1 iyunya 1962 g., 112-128

TOPIC TAGS: meteorite, Tungus meteorite, shock wave

ABSTRACT: The radial flattening of the forest in the area of the explosion of the Tungus meteorite is the most reliable criterion for study of the propagation of the shock wave accompanying the explosion. The forest flattening has been investigated repeatedly on the ground and from the air and a considerable body of literature has accumulated concerning the phenomena, parts of which are reviewed in this paper. Data from the expeditions of 1960 and 1961 are discussed in the greatest detail; the methods applied to study of the forest flattening are becoming increasingly sophisticated. Emphasis in this article is on statistical analysis of data collected over the 2,000-km^2 area of forest flattening. New topographic

ACCESSION NR: AT4035837

surveys and aerial photography have facilitated the investigation. Data are available for 580 points throughout the area; in the latest expedition a grid was laid out and azimuths of fallen trees measured carefully in the sample areas. A general description of the area of flattening is followed by a statistical analysis of the forest destruction. Particular attention is given to the central area and a study of the influence of relief on the degree of destruction. Fig. 1 of the Enclosure shows the flattening of the forest in the area of falling of the meteorite. Orig. art. has: 25 formulas, 11 figures and 1 table.

ASSOCIATION: Komitet po meteoritam, Akademiya nauk SSSR (Committee on Meteorites, Academy of Sciences SSSR)

SUBMITTED: 00 DATE ACQ: 28May64 ENCL: 02

SUB CODE: AA NO REF SOV: 012 OTHER: 000

Card 2/42

DEMIN, D.Z.

Partially migratory fishes of the Terek Delta. Vop. ikht. 2 no.1:90-99 '62. (MIRA 15:3)

1. Dagestanskiy nauchno-issledovatel'skiy institut pishchevoy promyshlennosti, Makhachkala.

(TEREK DELTA—FISHES)

DEMIN, E. A.

DEMIN, E. A. --"The Use of the Methods of Impulse Technology in Telegraphy."
Min Communications USSR. Moscow, 1955. (Dissertation for the Degree
of Candidate in Technical Sciences.)

So.: Knizhnaya Litopis', No. 7, 1956.

6(6)

AUTHORS: Chinenkov, L.A., and Demin, E.A. SOV/162-58-3-21/26

TITLE: The Future Application of Ferrites in a Television Synchrogenerator (Perspektivy primeneniya ferritov v televizionnom sinkhrogeneratore)

PERIODICAL: Nauchnyye doklady vysshey shkoly, Radiotekhnika i elektronika, 1958, Nr 3, pp 154-161 (USSR)

ABSTRACT: The author reviews the possible application of ferrites with a rectangular hysteresis loop in a television synchrogenerator. Here, these ferrites may be used in frequency divider circuits, pulse-shaping networks, grid synchronization circuits, circuits for the mutual synchronization of two synchrogenerators. First, the author reviews some pulse networks with ferrites, known from computer engineering, since the television synchrogenerator is based on a similar principle. Figure 1 shows a one-cycle shift register network, and figure 3 a dynamic trigger with one ferrite core. Then, the author presents two block diagrams for different versions of frequency dividers

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The Future Application of Ferrites in a Television Synchrogenerator SOV/162-58-3-21/26

and one block diagram of a network producing control pulse sequences. The author points out the advantages of ferrites, especially since they reduce the number of vacuum tubes by 7-8 times. For example, the GS-14 synchrogenerator presently used had 43 vacuum tubes, whereby 5-6 tubes may be eliminated. Ferrites may find a wide-spread application in industrial television apparatus, since they permit the construction of simplified synchrogenerators. There are 7 diagrams, 3 graphs and 3 Soviet references.

ASSOCIATION: Novosibirskiy elektrotekhnicheskiy institut svyazi (Novosibirsk Electrical Engineering Institute of Communications)

SUBMITTED: February 24, 1958

Card 2/2

DEMIN, E.A.; CHINENKOV, L.A.

Joint use of semiconductor devices and ferrites having rectangular hysteresis loop in pulse commutation circuits. Izv. vys. ucheb. zav.; radiotekh. no.3:314-318 My-Je '58. (MIRA 11:7)

1. Rekomendovana kafedroy radiopriyemnykh ustroystv Novosibirskogo elektrotekhnicheskogo instituta svyazi.
(Transistors) (Ferrates) (Pulse techniques (Electronics))

DEMIN, E.A.; CHINENKOV, L.A.

Semiconductor current-pulse generators equipped with ferrites of rectangular hysteresis loops and used for the switching of commutation circuits. Nauch.dokl.vys.shkoly; radiotekh.i elektron. no.4:218-226 '58. (MIRA 12:6)

1. Novosibirskiy elektrotekhnicheskiy institut svyazi.
(Pulse techniques(Electronics))
(Electronic calculating machines)

SOV/106-58-9-10/17

AUTHORS: Chinenkov, L.A., and Demin, E.A.

TITLE: The Question of the Correcting Power of Start-Stop Telegraph Equipments (K voprosu ob ispravlyayushchey sposobnosti startstopnykh telegrafnykh apparatov)

PERIODICAL: Elektrosvyaz', 1958, Nr 9, pp 63 - 65 (USSR)

ABSTRACT: It is shown that with a normal law of distribution of distortion of signals the effective correcting power of a start-stop equipment is less than the nominal value by a factor of $\sqrt{2}$ times. If $W(\varphi)$ is the probability density of distortion of signal then the probability that a random excursion φ exceeds or is equal to some fixed level ϕ is given by (1). If the correcting system is assumed to act perfectly and there is no distortion of the correcting signal then when the correcting power has its nominal value ($\phi = \mu_{н}$) we find the probability of erroneous recording as (2). It should be noted that the upper limit of this integral is infinity while in practice there will be a finite maximum. The simplification is justified however. The distortion will be greatest when the condition shown in Fig 1 obtains and the signs of the distorted starting signal and coded signal are in

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SOV/106-58-9-10/17

The Question of the Correcting Power of Start-Stop Telegraph Equipments

opposition. When the correcting signal is distorted (2) becomes (4). This latter expression is difficult to evaluate and it is preferable to introduce the concept of an averaged value of operating correcting power, defined by (5). If it is assumed that the presence of fluctuation noise distorts the signals according to a normal law, then (2) becomes (2a). The reduction from (6) to (12) then shows that the effective average correcting power in the presence of fluctuation noise is less than the nominal value by a factor of $\sqrt{2}$ times. There are: 1 figure, 4 references, all Soviet.

SUBMITTED: March 6, 1958.

Card 2/2

DEMIN, E. A.

А. Я. Карпенко

Анализ схем амплитудной селекции

9 июня

(с 18 до 22 часов)

В. И. Еремин,
О. В. Евистович-Чехов

Генератор импульсов типа квадратичный синус

В. П. Юрченко,
Ю. Е. Карпенко,
Л. В. Афанасьева

Вопросы записи с экранов электронно-лучевых трубок методами фотографии и электрофотографии

А. А. Гальдин,
Д. А. Таранин

Новая система [illegible]

Э. А. Демин,
~~А. А. Чайкин,~~
Б. Н. Щербаков

Применение ферритов с ППГ и полупроводников в схеме телевизионного синхрогенератора

10 июня

(с 10 до 16 часов)

С. В. Гуревич,
В. И. Соколов

Влияние шумов на разрешающую способность в вещательном телевидении

М. В. Антипин

Определение предельной разрешающей способности передающих телевизионных трубок по двум точкам апертурной характеристики

М. Г. Морозов,
И. И. Цуккерман

Четырехполюсные магнитные линзы для телевизионных трубок

М. О. Гальперин,
М. И. Цинман,
В. С. Клюбин,
Б. К. Мирошевский

Контроль качественных показателей телевизионного тракта во время работы телецентра.

10 июня

(с 18 до 22 часов)

report submitted for the Centennial Meeting of the Scientific Technological Society of Radio Engineering and Electrical Communications im. A. S. Popov (VNORiE), Moscow, 8-12 June, 1959

PHASE I BOOK EXPLOITATION SOV/4975

Demin, E. A., and L. A. Chinenkov

Impul'snyye ustroystva na ferritakh i poluprovodnikakh v radio-elektronike (Ferrite and Semiconductor Pulse Devices in Radio Electronics) [Novosibirsk] Novosibirskoye knizhnoye izd-vo, 1959. 165 p. Errata slip inserted. 5,000 copies printed.

Ed.: P. N. Men'shikov; Tech. Ed.: Ye. M. Gostishcheva.

PURPOSE: This book is intended for readers acquainted with radio electronics and interested in new technical developments.

COVERAGE: The book examines the operating principles of ferrite and semiconductor pulse devices used in various fields of radio electronics, particularly in radio and communications engineering. Special attention is paid to the joint use of semiconductors and ferrites with a rectangular hysteresis loop. No personalities are mentioned. There are no references.

Ca~~rd 1/4~~

~~9 (2, 3)~~ 6,7100

66324
SOV/162-59-1-24/27

AUTHORS: Chinenkov, L.A., Demin, E.A.

TITLE: A Phase Discriminator Containing Magnetic Elements With Rectangular Hysteresis Loops

PERIODICAL: Nauchnyye doklady vysshey shkoly, Radiotekhnika i elektronika, 1959, Nr 1, pp 206-210

ABSTRACT: The authors describe a phase discriminator circuit composed of ferrite cores with rectangular hysteresis loops, as shown in Fig 2. Such a phase discriminator may be used in multi-channel communication systems and for remote controls. The conventional phase detector circuits used in radio engineering cannot be used in telegraphy, since the incoming signals are not periodic ones. The circuit recommended by the authors is simple, reliable and economical, since the ferrite cores require power only during the remagnetization. The phase discriminator circuit was subjected to laboratory tests which showed its advantages over other existing circuits. The authors explain briefly another ver-

Card 1/2

66324
SOV/162-59-1-24/27

A Phase Discriminator Containing Magnetic Elements With Rectangular Hysteresis Loops

sion of a phase discriminator combined with a polarized telegraph relay, shown in Fig 1. The mechanical relay may be replaced by an electronic relay and transistorized coincidence circuits. However, the electronic circuits are complicated and uneconomical. There are 2 circuit diagrams and 3 graphs.

ASSOCIATION: Novosibirskiy elektrotekhnicheskiy institut svyazi (Novosibirsk Electrical Engineering Institute of Communications)

4

SUBMITTED: June 24, 1958

Card 2/2

SOV/106-59-6-2/14

AUTHORS: Chinenkov, L.A., and Demin, E.A.

TITLE: Frequency Dividers using Ferrites and Transistors (Deliteli chastoty s primeneniyem ferritov i poluprovodnikovykh triodov)

PERIODICAL: Elektrosvyaz', 1959, Nr 6, pp 11-17 (USSR)

ABSTRACT: The article describes several variants of "ring", i.e. closed, shift register circuits which utilise the rectangular hysteresis loop characteristics of ferrites. These circuits can be used for counting down (frequency division) and for time switching. The basic circuit is shown in Fig 1. In the initial condition, one of the cores is magnetized, i.e. in state 1, and the remainder are in state 0. Under the action of each driving pulse, which endeavours to convert all the cores to the state 0, the state 1 is passed through the four-terminal network to the next core. The frequency of the output pulses (Fig 2) is three times lower than the frequency of the driving pulses and the output pulses of each stage are time-shifted relative to the output pulses of the next stage by 1/3 of a period. For reliable operation, it is necessary to ensure that the 1 state is registered on one of the stages and that any other surplus 1 states

Card 1/3

SOV/106-59-6-2/14

Frequency Dividers using Ferrites and Transistors

are erased. This can be achieved manually or automatically. To eliminate the undesirable effects of noise, due to the hysteresis loops not being perfectly rectangular, it is usual to use a noise compensation circuit, but in frequency dividers this phenomenon can be used for self-resetting. Since the noise affects all stages, it is necessary to provide circuits to suppress any surplus 1 states. Fig 3 shows a ring circuit for a frequency divider, counting down 5 times, with automatic reset, designed on the basis of a single-path shift register with controlled discharge circuits (Refs 3, 6). The circuit is described and practical details listed. This circuit with some additions was used as a frequency divider for a television synchro-oscillator (Fig 4). The driving pulses were produced by a semiconductor blocking oscillator (3125 c/s). The circuit is fully described and oscillograms of the waveforms given.

Card 2/3

SOV/106-59-6-2/14

Frequency Dividers using Ferrites and Transistors

The dividing ratio can be easily changed by switching more stages into the circuit.

There are 9 figures and 8 references, 3 of which are English and 6 Soviet.

Card 3/3

SUBMITTED: August 27, 1958

SOV/4957

PHASE I BOOK EXPLOITATION

Demin, Engel's Alekseyevich and Leonid Arkad'yevich Chinenkov

Registry sdviga na ferritovykh serdechnikakh v radiotekhnike (Shift Registers with Ferrite Cores in Radio Engineering) Moscow, Gosenergoizdat, 1960. 86 p. 15,000 copies printed.

Ed.: Yu. I. Vizun; Tech. Ed.: K. P. Voronin. Reviewer: A. A. Pashkov, Engineer.

PURPOSE: This book is intended for technical personnel and students in schools of higher education.

COVERAGE: The book deals with ferrite-core pulse circuits with a rectangular hysteresis loop used in radio engineering. The operation of shift registers and their use as frequency dividers, time switches, and pulse-shaping devices are reviewed in detail. Special attention is paid to the reliability of the circuits described, and to the combined use of ferrite cores and semiconductor devices. The book is based on Soviet and non-Soviet sources, although part of it is original and appears for the first time.

Card ~~1/4~~

DEMIN, N.A.; CHINENKOV, L.A.

Automatic phase control circuit for a synchronous electronic telegraph apparatus. Elektrosviaz' 14 no.2:72-74 F '60. (MIRA 13:5)

(Telegraph)

L 6289-66 EWT(d)/EWT(1)/EWA(h) GW

ACC NR: AP5026489 SOURCE CODE: UR/0286/65/000/019/0025/0025

35
B

INVENTOR: Chinenkov, L. A.; Demin, E. A.; Garskov, G. Kh.
55 55 55

ORG: none

TITLE: Method of correcting errors occurring at junctions of meteor bursts in meteoric radiotelegraphy equipment. Class 21, No. 175081

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 19, 1965, 25

TOPIC TAGS: radio communication, meteoric burst communication
55,12 B

ABSTRACT: The proposed method of correcting errors occurring at junctions of meteor bursts in equipment for meteoric radiotelegraphy is based on the repetition at the beginning of each transmission of the code combinations transmitted at the end of the preceding transmission. In order to reduce the distortions at the end of the bursts, the transmitted code combinations are counted at the transmitting end, and the correctly received code combinations are counted at the receiving end of the system. At the beginning of each burst, the last digit of the number of the transmitted combinations is transmitted and compared at the receiving end with the last digit of the number of correctly received combinations, establishing the number of the code combination with which to begin reception. [DW]

SUB CODE: EC/ SUBM DATE: 06Dec60/ ATD PRESS: 4137
NW
UDC: 621.394.147

Card 1/1 0901 1206

L 3161-66 EWT(d)/FSS-2/EWT(1)/EWA(h) GS/GW

UR/0000/65/000/000/0117/0121

ACCESSION NR: AT5014718

20
B+1

AUTHOR: Demin, E.A.; Chinenkov, L.A.; Mikhaylovskiy, I.P.; Chesnokov, A.F.

55 55 55 55

TITLE: Memory devices for systems of meteoric radiotelegraph communications

SOURCE: Operativnyye i postoyannyye zapominayushchiye ustroystva (Rapid and non-volatile storage); sbornik statey. Leningrad, Izd-vo Energiya, 1965, 117-121

TOPIC TAGS: meteoric communication memory, fast reading memory, slow recording memory, standby memory, radiotelegraphy

12,55

ABSTRACT: Proposed meteoric radiotelegraph communication links require buffer memories which make possible a continuous transfer of information over a discontinuous communication channel. The memory on the transmitter side should have a high reading rate and slow recording speed while the memory on the receiver side should operate in the reverse manner. The memory described in this article can carry out simultaneous recording and reading of information and can be started and stopped almost instantaneously. With a capacity of 900 code combinations it is relatively simple while, nevertheless, it causes only insignificant reductions in the communication channel transfer rate. It utilizes direct sampling and has five operating digits plus one control digit. Orig. art. has: 3 figures.

Card 1/2

L 3161-66

ACCESSION NR: AT5014718

ASSOCIATION: none

SUBMITTED: 20Jan65 ENCL: 00 SUB CODE: DP, EC

NO REF SOV: 001 OTHER: 001

Card 2/2

DEMIN, G.

Cabbage butterfly. Zashch. rast. ot vred. i bol. 10 no.8:39 '65. (MIRA 18:11)

1. Krasnodarskiy pedagogicheskiy institut.

DEMIN, G.

USSR/ Miscellaneous - Conferences

Card 1/1 Pub. 89 - 5/33

Authors : Barsukov, S.; Yemshakov, N.; and Demin, G.

Title : Amateur radio operators honor the 20th Convention of the Communist Party of the Soviet Union

Periodical : Radio 2, 8-9, Feb 56

Abstract : Various amateur radio organizations promote contests in honor of the 20th Convention of the Communist Party of the Soviet Union. Illustration.

Institution : .....

Submitted : .....

DEMIN, G.

Road to the air waves. Radio no.10:21 '56. (MLRA 9:11)

1. Predsedatel' sektsii korotkikh i ul'trakorotkikh voln Saratovskogo radiokluba.
(Saratov--Radio clubs)

22 (1) SOV/27-59-2-11/30

AUTHORS: Kul'mamet'yev, G., School Director, and Demin G., Deputy School Director

TITLE: On the New Road (Na novom puti)

PERIODICAL: Professional'no-tekhnicheskoye obrazovaniye, 1959, Nr 2, pp 18 - 19 (USSR)

ABSTRACT: The reorganization of the MTS and transfer of their equipment to the kolkhozes has necessitated a revision of present curricula in agricultural mechanization schools. As the existing Labor Reserve Schools will be maintained for the next 3 to 5 years, the authors believe that mechanization schools can divide their activities into 3 periods: 1) Present activities remain unchanged until 1961; 2) Transitional period 1962-63 and 3) Period of complete reorganization into agricultural vocational-technical schools. During the first period as before, young people, preferably with 7 years of education and not younger than 17 should be admitted. Changes in the curricula are suggested which would give the students more time to become skilled in repair work. Another suggestion aims at training a new type

Card 1/3

of workman - a mechanic with 1 year of training for installation and repair of stationary agricultural machinery. The authors complain that their school is short of up-to-date equipment such as tractors DT-24, DT-28, DSSh-16 and DT-54 with a hydraulic system, and of combiners S-4M, SK-3, PK-2, and stress that it is important to train students on modern equipment. During the transitional period, mechanization schools should work on two curricula: the old one with 1 year of training for tractor operators and the installation and repair mechanics and a new curriculum with 2 years of training. The new period is necessitated by introduction of the 8-year polytechnical school. It is also considered expedient that training farms have a minimum size of 500 to 700 ha with 250 to 300 students. During the transitional period the mechanization schools will gain some training experience according to the new curriculum and gradually prepare for the complete reorganization into rural vocational technical schools. The latter will admit only graduates from 8-year rural or urban schools. There is 1 photograph.

SOV/27-59-2-11/30

On the New Road

ASSOCIATION: Uchilishche mekhanizatsii sel'skogo khozyaystva Nr 3 (Udmurtskaya ASSR) (School of Agricultural Mechanization Nr 3 (Udmurt ASSR)

Card 3/3

DEMIN, G.

The role of the committees on methods is increasing. Prof.-tekh. obr. 18 no.9:22 S '61. (MIRA 14:11)

1. Zamestitel' direktora po uchebno-proizvodstvennoy rabote sarapul'skogo uchilishcha mekhanizatsii sel'skogo khozyaystva No.3.

(Udmurt A.S.S.R.--Farm mechanization--Study and teaching)

CHUKHAR'1O, Z., kand.ekonomicheskikh nauk; DEMIN, G., kand.tekhn.nauk

Problems of extablishing continous grain receiving and processing lines. Muk.-elev. prom. 27 no.8:14-15 Ag '61. (MIRA 14:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov yeago pererabotki.

(Grain elevators)

(Grain-handling machinery)

DEMIN, G., kand.tekhn.nauk; DZHOROGYAN, G., kand.tekhn.nauk; MEL'NIK, B., kand. tekhn.nauk; CHUKHAR'KO, Z., kand.ekonom.nauk

Improvement of the technology of postharvest processing of grain. Muk.-elev. prom. 28 no.8:6-8 Ag '62. (MIRA 17:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov yego pererabotki.

DEMIN, G., starshiy prepodavatel'

School and production. Grazhd. av. 21 no.5:25 My '64.
(MIRA 18:4)

[illegible], G. A.

Industrial methods in building reinforced concrete silos. Stroi. prom. 30, No 6, 1952.

S/868/62/000/000/001/003
A004/A126

AUTHOR: Demin, G.A.

TITLE: Measures of fire prevention in the production of silicon-organic K-58 varnish

SOURCE: Pozharnaya bezopasnost' novykh proizvodstv khimicheskoy promyshlennosti; sbornik statey diplomantov. Ed. by V.A. Chekryzhov. Moscow, Izd-vo M-va kommunal'nogo khozyastva, RSFSR, 1962, 39 - 46

TEXT: Commenting in general on the importance of silicon-organic resins, elastomers and liquids with high insulating and operative properties, the author treats problems of fire prevention in the production of silicon-organic K-58 varnish, which is made from silicone monomers: phenyl trichlorosilane, dimethyl dichlorosilane, methyl trichlorosilane and methyl-phenyl amino-methyl diethoxylane. Toluene is used as solvent. The physico-chemical properties of raw materials, semi-finished and finished products are compiled in a table. A plant producing the K-58 varnish comes under the category A as to fire hazards and, concerning the regulations for electric installations, the buildings belong to the class

Card 1/2

Measures of fire prevention in the production of S/868/62/000/000/001/003
A004/A126

B-1a. The author describes the fire hazards of some of the technological apparatus used, such as e.g., monomer and toluene measuring tanks, mixers, silanol hydrolysis apparatus and scrubbers, containers taking up silanol after scrubbing, apparatus for toluene distillation from the silanol solution, silanol condensers, super-centrifuges and bottle fillers, and gives an account of the fire-prevention measures that are to be observed with any of the above technological apparatus. There is 1 table.

Card 2/2

GYURDZHIAN, A.A.; DEMIN, N.N.; KORNEYEVA, N.V.; L'VOV[illegible], T.S.; TUTOCHKINA,
L.T.; USPENSKAYA, M.S.; FEDOROVA, T.A.

Some aspects of metabolism in animals due to cosmic flight. Isk.sput.-zem. no.11:78-86 '61. (MIRA 15:1)

(SPACE BIOLOGY)

DEMIN, G. G.

USSR/Engineering - Construction, Hydroelectric Stations

30 Nov 52

"Complex Mechanization of Operations in Construction of Mingechaur Hydroelectric Power Station," Engr G.G. Demin

"Byul Stroit Tekh" No 22, pp 6-10

Discusses practices at Mingechaur GES construction, as follows: Excavation of ditches for major structures, 8.4 million cu m; removal of top ground from open pits, 5.5 million cu m; useful excavation of gravel and sand, 17.9 million cu m; hydraulic fill of dam, 16.3 million cu m; concrete and reinforced-concrete placing works, 850,000 cu m. States that earth dam of station is one of world's largest dams. It is 76 m high and 450 m wide at base.

243T43

DEMIN, G.G.

Changes in the distribution of corn crops in the U.S.S.R. Geog.
v shkole 22 no.3:35-41 My-Je '59. (MIRA 12:11)
(Corn (Maize))

L 15340-66 EWT(m)/EWP(j)/T/ETC(m)-6 WW/JWD/RM

ACC NR: AP6000973 (N) SOURCE CODE: UR/0286/65/000/022/0057/0057

AUTHORS: Valgin, V. D.; Vasil'yeva, E. A.; Sergeyeva, V. A.; Demin, G. G; Kozlova, R. I.; Prokhorov, Ye. F.; Kuchina, F. G. 49 B

ORG: none

15,44,55 15

TITLE: A method for obtaining foam plastic. Class 39, No. 176391 [announced by Vladimir Scientific Research Institute for Synthetic Resins (Vladimirskiy nauchno-issledovatel'skiy institut sinteticheskikh smol)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 22, 1965, 57

TOPIC TAGS: plastic, foam plastic, polymer, resin, epoxy, catalyst

ABSTRACT: This Author Certificate presents a method for obtaining a foam plastic on the basis of epoxide resins 55 and aromatic polyamides 3 in the presence of an emulsifier with the aid of a gas generator. The reagents are thoroughly mixed, foamed, and hardened by heating. To lower the foaming and hardening temperature, organic and inorganic acid catalysts are added to the reaction mixture. The organic catalysts are formic and acetic acid and the inorganic catalysts are phosphoric acid and perchloric acid. The catalysts are used in proportion of 0.2 to 3 wt parts per 100 wt part of resin. Freons are used as foaming agents.

SUB CODE: 11/ 07/ SUBM DATE: 31Oct63

SC

Card 1/1

UDC: 678.643'42'5.076.044.8

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

ca

9

Production of sponge iron from Malkinsk (North Caucasus) ores. G. I. Demin and S. K. Trekalo. *Teoriya i Prakt. Met.* 1936, No. 2, 7-13. The various ores consist chiefly of limonite, hematite and magnetite. The small oolite ores are the richest (Fe 50, Cr 0.73-1.0 and Ni 0.22-0.72%). The ore can be reduced with the husks of sunflower seeds and corn stalks. Reduction is 80-90%. With an excess of reducing agent, the reduction can be conducted at 1100° without agglomeration. Reduction with H is less satisfactory. To prevent recurring oxidation, the sponge should be cooled in a reducing or neutral atm. to 50-60°. The metal is suitable for blast-furnace use.

B. Z. Kamich

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

9

Experimental agglomeration of Krivorog ores. G. I. Demin and V. G. Voskoboinikov. *Teoriya i Prakt. Met.* No. 6, 54-60(1937); cf. preceding abstr.—Agglomeration was conducted with the chief types of Krivorog ores. Compn. varied as follows: SiO_2 2.06-25.98, FeO 0.15-1.27, Fe_2O_3 71.58-96.20%. Screen test showed: 0-0.18 mm. 34.5-68.0%, 0.18-0.49 mm. 7.5-27.0%, 0.49-5 mm. 10.5-43.5%. Breeze was 0-2.5 mm. Expts. show that to obtain good results the charge should have 4-6% water for rich ores and 6-9% for poor ores. Yield of agglomerates over 5 mm. was 80-90%; the product was sufficiently strong and porous. Lower mech. properties were obtained from ores of 14% or more SiO_2. The production of normal agglomerate corresponds to content of 20-25% FeO in product. Expts. with rich and poor ore mixts. gave pos. results. Mixt. of both should contain about 10% SiO_2.

B. Z. Kamich

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

9

C 1

The external heat losses of blast furnaces. G. I. Demin. *Teoriya Prakt. Met.* 12, No. 8, 5-11(1940).—The external losses of heat of the blast furnaces built according to the Gipromez specifications are 4 × 10^6 cal./hr during the first 1.5–2.0 years of operation and 4.5–4.6 × 10^6 cal./hr. thereafter. A decrease of the capacity of the furnace and an increase of the relative consumption of coke increase the heat losses per unit of pig Fe. The heat losses by radiation and convection are not more than 0.5% of the total external heat losses. The heat loss of the foundation through conduction is 1%. Cooling-water losses are 92.58–95.91% of the total external losses.

W. R. Henn

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

CA

1

Thermal work of a blast furnace. G. I. Demin. *Stal* **8**, 679-85(1948). The concept of "coefficient of fuel utilization" (c.f.u.) is introduced as an important factor in the evaluation of thermal performance of a furnace. The c.f.u. is not to be confused with the thermal efficiency of a blast furnace. C.f.u. is the ratio of heat remaining in the furnace per unit fuel to the calorific value of this fuel and is expressed by $\eta = (Q_f + Q_b) - (Q_{g.s.} + Q_{g.c.})/Q_f$ where Q_f is the calorific value of a unit fuel, Q_b is the sensible heat of the blow per unit fuel, $Q_{g.s.}$ is the sensible heat of the throat gas per unit fuel, and $Q_{g.c.}$ is the chem. heat of the throat gas per unit fuel. The heat capacity (Q_h) of a blast furnace defined as the total quantity of heat that needs to be supplied to the furnace is given by $Q_h = (q_1/\eta) + (Aq_2/\eta)$ where q_1 represents the external losses of heat in cal./hr., q_2 is heat required for smelting 1 ton of pig iron, and A is the furnace output in tons/hr. In this equation q_1/η is defined as the heat capacity of an empty furnace in cal./hr. and Aq_2/η as the effective heat capacity of a furnace in cal./hr. The use of these formulas for constructing heat consumption-metal output diagrams and in other blast-furnace calcns. is illustrated. M. Hosch

DEMIN G.I.

18(5) PHASE I BOOK EXPLOITATION SOV/2295

Moscow. Institut stali

Primeneniye kisloroda v staleplavil'nom proizvodstve (Use of
Oxygen in Steelmaking) Moscow, Metallurgizdat, 1957. 418 p.
(Series: Its: Sbornik, 37) Errata slip inserted. 3,500
copies printed.

Ed.: Ye. A. Borko; Ed. of Publishing House: Ya. D. Rozentsveyg;
Tech. Ed.: Ye. B. Vaynshteyn; Editorial Board of the Insti-
tute: N.A. Glinkov, Doctor, Professor; R.N. Grigorash, Can-
didate of Technical Sciences, Docent; N.T. Gudtsov, Academician;
V.P. Yelyutin, Doctor, Professor; A.A. Zhukhovitskiy, Doctor,
Professor; I.N. Kidin, (Resp. Ed.) Doctor, Professor; B.G.
Livshits, Doctor, Professor; A.P. Lyubimov, Doctor, Professor;
I.N. Pavlov, Corresponding Member, Academy of Sciences, USSR;
K.G. Trubin, Doctor, Professor; and A. N. Pokhvisnev, Doctor,
Professor

PURPOSE: This collection of articles is intended for scientific,
industrial, chemical, and metallurgical engineers, physicists
and students.

COVERAGE: This book is a collection of scientific research papers
on the utilizations of oxygen in steelmaking. The use of oxygen
blast for the intensification of fuel combustion and the in-
troduction of oxygen into liquid metal in order to oxidize ad-
mixtures are among the topics discussed. The use of oxygen in
~~from pig iron with a high~~
scrap-ore processes for making steel
phosphorus content is also discussed. Several articles deal
with the heating and processing fundamentals of steelmaking in
a recirculation steel-melting furnace. Individual articles
deal with the economics of steelmaking with oxygen-blast and
the optimum conditions for effective utilization of oxygen. No
personalities are mentioned. References follow each article.

Orlov, V.I. [Candidate of Technical Sciences], R.N. Ivanov,
[Engineer], and Kh. D. Yerinin [Engineer]. Gas Content in the
Open-hearth Bath 98
The authors discuss the content of oxygen, hydrogen, and
nitrogen present in the open-hearth bath at various stages of
the heat

Bannyy, N.P. [Candidate of Economic Sciences], and V.A. Romenets
[Candidate of Technical Sciences]. Technical and Economic
Efficiency of Oxygen Utilization in Open-hearth Processes 124

Oyks, G.N. Doctor of Technical Sciences, [Professor], Yu. V.
Kryakovskiy [Candidate of Technical Sciences], and V.P.
Grigor'yev [Engineer]. Intensifying Open-hearth Conversion of
High-phosphorus Pig Iron by Introducing Oxygen Into the Bath 138

Oyks, G.N., Yu. V. Kryakovskiy, Ye. A. Kapustin, and V.P.
Grigor'yev. Efficiency of Oxygen Utilization for Enriching Air
in the Open-hearth Conversion of High-phosphorous Pig Iron 152
The author describes comparative industrial tests of
different stages of the open-hearth process with and with-
out the use of oxygen.

Oyks, G.N. Selecting the Proper Method for Open-hearth Conversion
of High-phosphorus Pig Iron 166
The author suggests a composition of open-hearth charge,
which, combined with oxygen blast, is supposedly more
efficient in dephosphorization.

Abrosimov, Ye. V. [Candidate of Technical Sciences, Docent].
Intensification of the Open-hearth Scrap Process With Oxygen 177
The author discusses the use of oxygen blast for the in-
tensification of fuel combustion, for the meltdown, for
the direct oxidation of charge elements, and for the duration
of the entire heat.

Abrosimov, Ye. V., V.A. Kudrin [Candidate of Technical Scien-
ces], and G.I. Demin [Candidate of Technical Sciences, Docent].
Material and Heat Balances of the Open-hearth Scrap Process
With Oxygen Blast 195
The authors give an account of a comparative experimental
investigations of heat and material balances of open-hearth
processes with and without oxygen blast.

Kudrin, V.A. Temporary Overoxidation of the Open-hearth Bath
During Oxygen Blast 214

Abrosimov, Ye. V., and V.A. Kudrin. Course of Carbon Oxi-
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Card 6/9

Use of Oxygen in Steelmaking SOV/2295

Kudrin, V.A., and Ye. V. Abrosimov. Possibility of Decreasing Time of the Rimming Process Proper in the Open-hearth Bath During Oxygen Blast 252
The author presents a method of decreasing rimming time to 4 to 5 minutes, thus increasing production by 5 to 10 percent

Kryakovskiy, Yu. V. Dust Formation in the Open-hearth Furnace During the Scrap Process 260

Aleksandrova, A.I. [Candidate of Technical Sciences], O.N. Oyks, and N.P. Bannyy. Making Steel From High-phosphorus Pig Iron 281
The authors discuss production data for the conversion of high-phosphorus pig iron, including heat time, slag formation, and the effect of oxygen on fuel consumption.

Glinkov, M.A. Doctor of Technical Sciences [Professor], and N.S. Vavilov [Candidate of Technical Sciences]. Heat Exchange Above the Bath of a Recirculation Steel-melting Furnace 305
This article deals with the thermal and technical aspects of a 10-ton industrial recirculation steel-melting furnace with simultaneous fuel feed from both ends accompanied by the application of oxygen-enriched air.

Krivandin, V.A. [Candidate of Technical Sciences]. Study of Combustion in the Recirculation Steel-melting Furnace 330
The author describes an investigation of the combustion processes, furnace gases, and composition of the exhaust gases.

Bakhtman, A. Ya. [Candidate of Technical Sciences, Docent]. Special Characteristics of Gas Flow in a Recirculation Steel-melting Furnace 354
The author discusses investigations made in a model furnace for the study of gas flow, the distribution of combustion products, and the distribution of pressure on the walls.

Demin, G.I. [Docent]. Heat Balances of a Recirculation Steel-melting Furnace 372

Molchanov, N.G. [Candidate of Technical Sciences, Docent]. Comparison of Gaseous Fuel Combustion Processes in Furnaces With Through and Recirculating Gas Flows 377

Livshits, B.G. [Doctor of Technical Sciences, Professor], L.A. Shishko [Candidate of Technical Sciences, Docent], and N.G. [illegible] [Engineer]. Quality of Steel Made in a Recirculation Steel-melting Furnace 395
The authors investigate the qualities of recirculation-furnace steels, comparing them with ordinary open-hearth steel.

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SOV/137-58-8-16508

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 39 (USSR)

AUTHORS: Glinkov, M.A., Demin, G.I.

TITLE: Recirculating-heat Steel Smelting Furnaces (Retsirkulyatsionnyye staleplavil'nyye pechi)

PERIODICAL: V sb.: Primeneniye kisloroda v metallurgii. Moscow, Metallurgizdat, 1957, pp 186-216

ABSTRACT: Recirculating-heat furnaces (RF) are classified as a third type of steel smelting furnaces characterized by bilateral heating of the hearth (H); unlike open-hearth furnaces, the process of heating is continuous (the supply of heat to the H is uninterrupted) which makes it possible to utilize the principle of heat recovery (analogous to the method employed in direct-current furnaces) rather than regeneration, as is typical of open-hearth furnaces. The RF may operate with hot or cold blowing. They may operate on nonenriched air alone, provided the latter has been heated to a high temperature, because complete combustion of fuel in the H of an RF requires considerably smaller amounts of excess air than in the case of direct-current or open-hearth furnaces (1.1 instead of 1.3); consequently, the

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Recirculating-heat Steel Smelting Furnaces

temperature effect of air which had been preheated to a temperature of 800°C in an RF is equivalent to the effect of air preheated to 1100° in an open-hearth furnace. The authors present data of an investigation of a 10-ton fuel-oil operated RF which had been placed into operation in 1952 at the Novo-Tul'skiy metallurgical plant and which operated without heated-air blowing until 1955, at which point it was equipped with tubular (fireclay tubes) recuperators. Prior to 1955, the RF operated on air enriched with 70-80% of O_2 at a pressure of approximately 2 at. Hot air from the recuperators, equipped with end-mounted tuyeres with nozzles, passes into the H through short uptakes which are inclined at a 16° angle. Since the volume of the checkered brick-work of the recuperator constitutes 70% of the required volume, it was found possible to heat the air in amounts only up to 3000-3500 nm^3/hr. Expressed in millions of kcal/hr, the thermal loading of the furnace constitutes 8.5-9.0 during the charging-fusion period, and 1.0-4.5 during the finishing stages. As a result of the investigation it was found that the RF's are capable of smelting soft iron (of the Armco type), steels Nrs 2 and 3, carbon steels Nrs 30, 40, 45, and, with particular ease, low-carbon types of steel, because the mean rate of combustion of C amounts to 2-4%/hr. The smelting time varied between 1.98 and 2.82 hrs, the consumption of conventional fuel fluctuated from 965 during smelting on completely liquefied

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metallic charge to 2300 kg for Armco Fe smelting, and from 1245 to 1760 kg for all other types. Consumption of O_2 amounted to 2120 nm^3 (during smelting on a completely liquefied metallic charge), 3080 nm^3 (during smelting on Armco-Fe), and 1640-2200 m^3 for all the other types of steel. The employment of recuperators for the preheating of air permitted a reduction in the consumption of O_2 per smelting (while the fuel consumption remained practically unaltered). It was found that the recuperators are sufficiently durable (1480 smeltings performed in the first campaign at the end of which the temperature of the air was increased to 850-870°).

N.I.

1. Furnaces--Heating 2. Furnaces--Operation 3. Furnaces--Performance
4. Steel--Production

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SOV/137-58-7-14372

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 61 (USSR)

AUTHORS: Abrosimov, Ye.V., Kudrin, V.A., Demin, G.I.

TITLE: Balance of Materials and Heat When Oxygen is Used in Open-hearth Production With Solid-steel (Scrap) Charge (Material'nyy i teplovoy balans martenovskogo skrap-protsessa pri primenenii kisloroda)

PERIODICAL: Sb. Mosk. in-t stali, 1957, Vol 37, pp 195-213

ABSTRACT: 29 experimental heats were run with solid-steel (scrap) charge in 70-t heavy-oil fueled furnaces at the "Serp i Molot" ("Hammer and Sickle") Plant. In oxygen heats O_2 was applied in the jet, in cutting the charge upon fusion, and in direct oxidation of the bath. The total O_2 consumption was 30-38 m^3/t. The yield of molten steel in oxygen heats is 0.9-1.0% lower than in ordinary heats. The total loss of Mn is also higher in the first group of heats: 66.5% instead of 61.83%. The maximum and mean increase in output in use of O_2 by a combination of methods (the furnace having a conventional silica-brick roof) were, respectively, 51 and 26.4%, and fuel consumption was reduced by 24.6%. When O_2 was employed, the rate of

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Balance of Materials and Heat When Oxygen is Used in Open-hearth (cont.)

oxidation of C during the charging and melting period was 50 to 100%, and during the working period, 100% higher than in ordinary heats.

A.S.

1. Open hearth furnaces--Performance 2. Steel--Production 3. Oxygen--Thermal effects 4. Fuels--Reduction

ASSOCIATION : KAFEDRA METALLURGII STALI I KAFEDRA METALLURGICHESKIKH PECHEY MOSKOVSKOGO INSTITUTA STALI IMENI I. V. STALINA.

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137-58-6-11709

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 71 (USSR)

AUTHOR: Demin, G.I.

TITLE: Heat Balance in Recirculation-type Steelmaking Oven (Teplovyye balansy staleplavil'noy retsirkulyatsionnoy pechi)

PERIODICAL: Sb. Mosk. in-t stali, 1957, Vol 37, pp 372-376

ABSTRACT: The heat balances of three experimental heats in a 10-t recirculation-type steel-foundry furnace without recuperators are adduced. The heat produced by exothermic chemical reactions in the bath is 300,000 kcal per ton of steel, or ~20% of the total amount required for the process. Liberation of this heat within a 30 to 40 min period affords a fuel economy. The proportion of the heat going to useful purposes is greater than in the open-hearth furnace as a consequence of the high speed at which the processes occur. Heavy-oil consumption is 126.5-130 kg/t, as compared with 209 kg/t in a 12-t furnace at the "Hammer and Sickle" plants. The fuel utilization coefficient is 50-53.2%, the efficiency is 34.5-38% at a maximum heat input of 6.3 mill. kcal/hr and an O_2 consumption of 166-248 nm^3/t.

G.G.

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1. Furnaces--Thermodynamic properties 2. Furnaces--Effectiveness 3. Furnaces--Chemical reactions 4. Chemical reactions--Thermodynamic properties 5. Steel--Production

SOV/133-59-1-6/23

AUTHORS: Glinkov, M.A., Doctor of Technical Sciences and
Demin, G.I., Candidate of Technical Sciences

TITLE: Recirculation-type Recuperative Steelmaking Furnace (Retsirkulyatsionnaya rekuperativnaya staleplavil'naya pech')

PERIODICAL: Stal', 1959, Nr 1, pp 24 - 31 (USSR)

ABSTRACT: The design and operation of a recirculation-type recuperative steelmaking furnace of 10 tons capacity is described. A recirculation furnace differs from an open-hearth furnace in that it operates with both burners simultaneously. Impact of two streams of gases in the centre of the furnace causes their intensive recirculation which sharply decreases the amount of dust in the waste gas. The design and dimensions of the furnace are shown in Figures 1, 2 and 3. In appearance the furnace is similar to an open-hearth furnace of the same capacity. Fuel oil is simultaneously supplied to both burners and the gaseous combustion products pass from the working volume through both parts along vertical flues into slag pockets and then to recuperators, waste gas flues and the chimney. Each recuperator was of 34.5 m^3 in volume and

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Recirculation-type Recuperative Steelmaking Furnace

240 m^2 in heating surface area. The stream of burning hot oil is used as an injector for air from the recuperator which decreases air losses. Proportioning of the supply of oil, oxygen and air is done separately for each flame. Recuperators are protected from overheating by an automatic supply of air to the overtube space in order to decrease the waste-gas temperature. Unfortunately, the recuperators were made of an insufficient volume (70% of the necessary) and their cleaning during operation was impossible due to insufficient cross-section of flues between recuperators and slag pockets. For a normal prolonged operation of recuperators only 1-2 rows of tubes from a high refractory material are necessary, the remaining tubes could be made from chamotte. Operation of the recuperator will be described in a separate paper. The durability of recuperator, first campaign - 1 480 heats, second 1 082. Air and recuperators temperature are shown in Figure 4. Smelting of MSt3 killed steel in the furnace is described in some detail. Average technological indices of the heats are shown in the table; the dependence of the consumption of fuel and oxygen during charging and melting and of the duration of this period on the duration of

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charging is shown in Figure 5 and main characteristics of a heat in Figure 6. It is claimed that for the first time in steelmaking practice, the possibility of operation under industrial conditions of a recuperative furnace with ceramic recuperators capable of pre-heating air to 1 000 °C was demonstrated. The proving series of heats (68 heats) under conditions near to the normal operating conditions had the following mean operating indices (MSt.3 steel for a continuous casting machine): duration of one heat 2 hours 43 minutes, consumption of oil 178 kg/ton, consumption of oxygen 170 m^3/ton of liquid steel; the yield of liquid steel 91-93%. The furnace is suitable for the production of killed steel MSt.3 (for a continuous casting machine) in quality equal to that produced in a basic open-hearth furnace. As the velocity of decarburisation can be varied within a wide range (from 2.0 to 0.36% hr), the furnace is particularly suitable for smelting low-carbon and specially soft steels (the sum of admixtures $C + Mn + S + P < 0.075\%$). High productivity of the recirculation furnace led to a considerable economy in respect of the constant expenses and the cost of oxygen is more than covered by fuel economy. The overall cost of steel does not exceed that in the normal open-hearth furnaces. Under operating conditions of the experimental furnace it was difficult to establish the economic efficiency of recirculating recuperative furnaces. It would be advantageous to build a 50-100 ton furnace capable of operating with oil and a gas of a high calorific value. There are 6 figures, 1 table and 4 references, 1 of which is German and 3 Soviet.

ASSOCIATION: Moskovskiy institut stali (Moscow Institute of Steel)

GLINKOV, M.A., doktor tekhn.nauk; DEMIN, G.I., kand.tekhn.nauk, dots.

Recuperative steel smelting furnace with recirculation (with summary in English). Stal' 19 no.1:24-31 Ja '59.
(MIRA 12:1)

1. Moskovskiy institut stali.
(Smelting furnaces) (Steel--Metallurgy)

DEMIN, G.I.; PLUZHNIKOV, A.I.

Design of burners for self-carburetting gas. Izv.vys.ucheb.zav.; chern.met. 4 no.9:162-170 '61. (MIRA 14:10)

1. Moskovskiy institut stali.
(Gas burners)

GLINKOV, M.A., doktor tekhn.nauk, prof.; DEMIN, G.I., kand.tekhn.nauk, dotsent

Operation of recirculating-type recuperative steel smelting furnaces.
Stal' 21 no. 4:317-318 Ap '61. (MIRA 14:4)

1. Moskovskiy institut stali.
(Smelting furnaces)

DEMIN, G.I., dotsent; PLUZHNIKOV, A.I., inzh.

Results obtained by the use of recuperators in steel smelting furnaces. Stal' 21 no.9:852-856 S '61. (MIRA 14:9)

1. Moskovskiy institut stali.
(Heat regenerators)

DEMIN, G.I.; PLUZHNIKOV, A.I.

Heat balence in a recuperative, steel smelting, recirculation furnace. Izv. vys. ucheb. zav.; chern. met. 5 no.9:188-192 '62. (MIRA 15:10)

1. Moskovskiy institut stali i splavov.
(Smelting furnaces) (Heat—Transmission)

DEMIN, G.I.; PLUZHNIKOV, A.I.; CHURAKOV, A.M., inzh.; ZHILIN, I.S., inzh.;
MAKAROV, D.M., inzh.; LEBEDEV, N.D., inzh.; SHISHLOV, D.D., inzh.;
IGLIN, V.P., inzh.; YEVLAYEV, E.S., laborant; KISELEV, V.V.,
laborant; KOTEL'NIKOV, V.V., laborant; TYULENEVA, N.I., laborant

Transfer of a holding furnace to heating by natural gas with self-carburation. Stal' 23 no.8:755-758 Ag '63. (MIRA 16:9)

1. Moskovskiy institut stali i splavov (for Demin, Pluzhnikov).
(Furnaces, Heating)

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B

AUTHOR: Valgin, V. D.; Vasil'yeva, E. A.; Sergeyeva, V. A.; Kuchina, F. G.; Demin, G. G.; Prokhorov, Ye. F.

TITLE: A method for producing heat resistant epoxy plastic foam. Class 39, No. 168011

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 3, 1965, 62

TOPIC TAGS: epoxy plastic, foam plastic, heat resistant plastic, surface active agent

ABSTRACT: This Author's Certificate introduces a method for producing heat resistant epoxy plastic foam by mixing epoxy resin, a gasifier, a surface active agent and a hardener. The mixture is then foamed and hardened. The thermal stability of the product is improved by modifying the epoxy resin with 2,4-toluylene diisocyanate and by using polymethylene polyphenylene polyamine as the hardener.

ASSOCIATION: none

SUBMITTED: 03Dec62 ENCL: 00 SUB CODE: MT

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DEMIN, G.S. (selo Turgenevo, Tul'skoy oblasti)

Unified stand for a chemistry study room. Politekh.obuch.
no.6:69-71 Je '59. (MIRA 12:12)
(Chemical laboratories--Equipment and supplies)

DEMIN, G.

DEMIDOV, A., kandidat tekhnicheskikh nauk; DEMIN, G., inzhener.

Sieve performance in grain cleaners. Muk.-elev.prom. 20 no.1:
8-10 Ja '54. (MLRA 7:7)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov ego pererabotki.
(Grain--Cleaning)

DEMIN, G.S.

DEMIN, G.S. "Investigation of the Sieves of Grain-Cleaning Separators." Min Higher Education USSR. Moscow Technological Inst of the Food Industry. Moscow, 1956. (Dissertation for the Degree of Candidate in Technical Science)

So: Knizhnaya Letopis', No. 18, 1956,

DEMIN, G.

DEMIN, G., inzhener; LUTKIN, N., kandidat tekhnicheskikh nauk.

Removing coarse impurities from grain on flat screens. Muk.-elev. prom. 22 no.9:9-11 S '56. (MLRA 10:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov yego pererabotki.
(Grain--Cleaning)

DEMIDOV, A., kandidat tekhnicheskikh nauk; LUTKIN, N., kandidat tekhnicheskikh nauk; DEMIN, G., kandidat tekhnicheskikh nauk; MALIS, A., kandidat tekhnicheskikh nauk; PETRENKO, A., inzhener; GERLAKH, L., inzhener; FROLOV, N., inzhener.

Mobile grain-drying unit. Muk.-elev.prom.22 no.12:3-5 D '56.
(MLRA 10:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov ego pererabotki (for Demidov, Lutkin, Demin, Malis and Petrenko). 2. Altayskaya kontora Zagotzerno (for Gerlakh).
3. Tekhnicheskiy otdel Ministerstva khleboproduktov SSSR (for Frolov).

(Grain--Drying)